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# MINERAL INDUSTRY SURVEYS

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#### **BISMUTH IN THE FOURTH QUARTER 1997**

Domestic consumption of bismuth in the fourth quarter of 1997 was 3% higher than in the third quarter. The largest increase (22%) was in the metallurgical additives sector. As compared with the fourth quarter of 1996, the total was 13% higher.

The Defense Logistics Agency sold the National Defense Stockpile's remaining inventory of 85 metric tons of bismuth on November 4, 1997. The average price of this last sale was \$2.85 per pound (Mining Journal, 1997). The National Defense Stockpile is now totally depleted of bismuth.

The New York dealer price for bismuth, as published by Platt's Metals Week, was \$3.48 per pound at the beginning of the fourth quarter. The price fell steadily during the quarter and reached \$3.33 per pound by the end of the year.

World supplies appear to be adequate for current demand.

The price continued to drift downward in 1997. It has fallen roughly 10% over the last 2 years. Imports of bismuth to the United States increased by more than one-third over the year. This increase was an expected result of the closure of the only domestic producing plant in June, 1997.

#### **Update:**

The New York dealer price for bismuth began to increase early in 1998 and reached \$3.63 per pound by mid-February.

#### **Reference Cited**

Mining Journal, 1997, Minor metals in November: Mining Journal, v. 329, no. 8458, December 5, p. 473.

## TABLE 1 SALIENT BISMUTH STATISTICS 1/

(Kilograms, unless otherwise specified)

		1997				
	1996	First quarter	Second quarter	Third quarter	Fourth quarter	Total
Consumption	1,520,000	387,000	367,000	423,000 r/	437,000	1,610,000
Exports 2/	151,000	38,300	92,200	38,700	NA	NA
Imports for consumption	1,490,000	603,000	487,000	607,000	NA	NA
Price per pound, dealer, end of period	\$3.65	\$3.20	\$3.88	\$3.48	\$3.33	XX
Stocks, end of period, consumer	122,000	108,000	125,000	115,000	220,000	XX

r/ Revised. NA Not available. XX Not applicable.

 ${\bf TABLE~2}\\ {\bf BISMUTH~METAL~CONSUMED~IN~THE~UNITED~STATES,~BY~USE~1/}$ 

#### (Kilograms)

		1997				
Use	1996	First quarter	Second quarter	Third quarter	Fourth quarter	Total
Chemicals 2/	855,000	211,000	186,000	226,000 r/	217,000	841,000
Bismuth alloys	401,000	108,000	114,000	130,000 r/	138,000	490,000
Metallurgical additives	231,000	62,300	59,800	61,200	74,800	258,000
Other	35,000	6,000	6,000	6,000 r/	7,000	25,000
Total	1,520,000	387,000	367,000	423,000 r/	437,000	1,610,000

r/ Revised.

 ${\bf TABLE~3} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~BISMUTH~METAL,~BY~COUNTRY~1/}$ 

#### (Kilograms)

	1996	1997					
Country	Year total	September	Third quarter	October	November	Year to date	
Belgium	584,000	62,000	219,000	63,800	36,500	691,000	
Canada	80,800	4,440	33,700	3,310	2,030	96,200	
China	151,000		89,100	10,100	9,620	143,000	
France			32			32	
Germany	498					107	
Hong Kong	15,800						
Japan	1,680		600			600	
Macao						20,000	
Malaysia		4,270	4,270			4,270	
Mexico	453,000	40,100	111,000	47,000	46,300	553,000	
Netherlands					45	45	
Peru	19,500	19,700	25,700	40,400	8,920	143,000	
Spain						100	
Switzerland						19	
United Kingdom	189,000	57,200	124,000	37,200	39,900	390,000	
Total	1,490,000	188,000	607,000	202,000	143,000	2,040,000	

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

<sup>1/</sup> Data are rounded to three significant digits.

<sup>2/</sup> Comprises bismuth metal and the bismuth content of alloys and waste and scrap.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Includes industrial and laboratory chemicals, cosmetics, and pharmaceuticals.

 ${\bf TABLE~4}\\ {\bf U.S.~EXPORTS~OF~BISMUTH~METAL,~ALLOYS,~AND~WASTE~AND~SCRAP,~BY~COUNTRY~1/}$ 

(Kilograms, metal content)

	1996			1997		
Country	Year total	September	Third quarter	October	November	Year to date
Argentina	137		960			960
Australia	197	1	1			21
Belgium	65,500		18,100			36,900
Bermuda				180		180
Brazil	50					
Canada	59,500	5,790	11,600	5,850	1,620	118,000
China			684			684
Dominican Republic	1,150	95	205		79	1,290
Finland	472					
France	5,380					2,450
Germany	497					1,300
Grenada						717
Guatemala	14,200					
Hong Kong						166
Ireland	227		191			1,500
Israel		1,740	2,230			2,230
Korea, Republic of	63					
Malaysia						103
Mexico	51		103		13	218
Netherlands	209					4,980
Singapore	144	2,240	4,600			4,800
Switzerland	2,220					
Taiwan			1	26		72
Thailand	45					
United Kingdom	596		1	795		796
Total	151,000	9,870	38,700	6,850	1,720	178,000

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.